



**COMBINED DECLARATION AND POWER OF ATTORNEY**

**As a below named inventor, I hereby declare that:**

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

**INVENTORSHIP IDENTIFICATION**

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD AND SYSTEM FOR MONITORING AN ETCH PROCESS**

**SPECIFICATION IDENTIFICATION**

The specification of which:

- ☐ is filed herewith
- ☒ was filed on September 29, 2003, under Serial No. 10/674,568, executed on even date herewith; or
- ☐ Express Mail No.(as Serial No. not yet known) and was amended on (if applicable)
- ☐ was described and claimed in PCT International Application No. filed on and as amended under PCT Article 19 on

**ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56, and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

### PRIORITY CLAIM (35 USC §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any provisional or foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any provisional or foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

- ☒ No such applications have been filed.  
☐ Such applications have been filed as follows:

**A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 USC §119**

<u>Country/PCT</u>	<u>Application Number</u>	<u>Date Filed</u>	<u>Priority Claimed</u>
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No

**B. All foreign application(s), if any, filed more than 12 mos. (6 mos. for design) prior to this U.S. application**

<u>Country/PCT</u>	<u>Application Number</u>	<u>Filing Date</u>
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**C. U.S. Provisional Application filed within 12 months prior to this application**

<u>Serial Number</u>	<u>Filing Date</u>
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### PRIORITY CLAIM (35 USC §120)

I hereby claim the benefit under Title 35, United States Code, §120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

- ☒ No such applications have been filed

☐ Such applications have been filed, as follows:

<u>Serial Number</u>	<u>Filing Date</u>	<u>Patented</u>	<u>Pending</u>	<u>Abandoned</u>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Donald Verplancken	Registration No. 33,217
Peter J. Sgarbossa	Registration No. 25,610
Lawrence Edelman	Registration No. 25,226
Raymond Kam-On Kwong	Registration No. 37,165
Joseph Bach	Registration No. 37,771
James C. Wilson	Registration No. 35,412
Robert W. Mulcahy	Registration No. 25,436
B. Todd Patterson	Registration No. 37,906
Raymond R. Moser, Jr.	Registration No. 34,682
Keith M. Tackett	Registration No. 32,008
Douglas H. Elliott	Registration No. 32,982
William B. Patterson	Registration No. 34,102

Send correspondence to:

Direct telephone calls to:

Patent Counsel  
APPLIED MATERIALS, INC.  
P.O. Box 450A  
Santa Clara, CA 95052

B. Todd Patterson  
MOSER, PATTERSON & SHERIDAN, L.L.P.  
(713) 623-4844

### DECLARATION

*I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.*

Full name of first inventor: **MATTHEW FENTON DAVIS**

Inventor's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Residence: \_\_\_\_\_

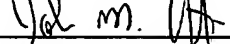
973 Forest Way  
Box 695  
Brookdale, CA 95007

Post Office Address: \_\_\_\_\_

Same as above  
U.S.A.

Country of Citizenship: U.S.A.

Full name of **second** inventor: **JOHN M. YAMARTINO**

Inventor's signature:  Date: 2/2/04

Residence: 2557 Park Boulevard  
Palo Alto, CA 94306

Post Office Address: Same as above  
U.S.A.

Country of Citizenship: U.S.A.

Full name of **third** inventor: **LEI LIAN**

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 3335 Homestead Road #30  
Santa Clara, CA 95051

Post Office Address: Same as above  
U.S.A.

Country of Citizenship: P.R. of China

**(Declaration ends with this page)**



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APPLIED MATERIALS, INC.  
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MOSER, PATTERSON & SHERIDAN, L.L.P.  
(713) 623-4844

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Full name of first inventor: **MATTHEW FENTON DAVIS**

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 973 Forest Way  
Box 695  
Brookdale, CA 95007

Post Office Address: Same as above  
U.S.A.

Country of Citizenship: U.S.A.

Full name of **second** inventor: **JOHN M. YAMARTINO**

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 2557 Park Boulevard  
Palo Alto, CA 94306

Post Office Address: Same as above  
U.S.A.

Country of Citizenship: U.S.A.

Full name of **third** inventor: **LEI LIAN**

Inventor's signature:  \_\_\_\_\_ Date: 2/21/2004

Residence: 3335 Homestead Road #30  
Santa Clara, CA 95051

Post Office Address: Same as above  
U.S.A.

Country of Citizenship: P.R. of China

**(Declaration ends with this page)**





IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

**PATENT APPLICATION**

Applicant: **Davis, et al.**

Case: **6716/ETCH/SILICON**

Serial No.: **10/674,568**

Filed: **September 29, 2003**

Examiner: **Unknown**

Group Art Unit: **Unknown**

Title: **METHOD AND SYSTEM FOR MONITORING AN ETCH PROCESS**

Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:

**CONSENT OF ASSIGNEE, APPLIED MATERIALS, INC.,  
TO CORRECTION OF INVENTORSHIP**

Assignee, Applied Materials, Inc., hereby consents to the correction of inventorship requested in the attached Petition and Amendment. Applied Materials, Inc. is an owner of this application as reflected in the assignment document filed with the U.S. Patent and Trademark Office on September 29, 2003. A copy of the assignment is attached hereto for reference.

Respectfully submitted,

2/14/2004  
Date

  
BARRY QUAN, Assistant Secretary  
Applied Materials, Inc.  
2881 Scott Boulevard  
Mail Stop 2064  
Santa Clara, CA 95050

## ASSIGNMENT FOR APPLICATION FOR PATENT

### WHEREAS:

#### Names and Addresses of Inventors:

1) Matthew Fenton Davis  
973 Forest Way  
Box 695  
Brookdale, CA 95007

2) John M. Yamartino  
385 Waverley Street  
Palo Alto, CA 94301

(hereinafter referred to as Assignors), have invented a certain invention entitled:

### METHOD AND SYSTEM FOR MONITORING AN ETCH PROCESS

for which application for Letters Patent in the United States was executed on even date herewith;  
and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use

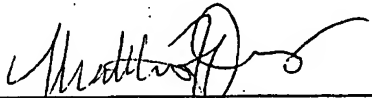
proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

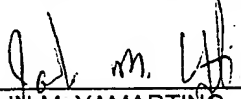
4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 9, 26, 2003

  
\_\_\_\_\_  
MATTHEW FENTON DAVIS

2) Sept. 25, 2003

  
\_\_\_\_\_  
JOHN M. YAMARTINO



IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

**PATENT APPLICATION**

Applicant: **Davis, et al.**

Case: **6716/ETCH/SILICON**

Serial No.: **10/674,568**

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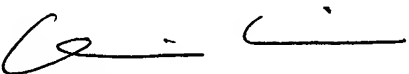
SIR:

**STATEMENT OF LEI LIAN**

I, Lei Lian, hereby state that the above-referenced application, as filed, should have reflected that I am a joint inventor of the current invention along with Matthew Fenton Davis and John M. Yamartino. In addition, the inventorship error occurred without deceptive intent.

Respectfully submitted,

2/21/2004  
Date

  
\_\_\_\_\_  
LEI LIAN

<small>FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/98)</small>		<b>RECORDATION FORM COVER SHEET</b> <b>PATENTS ONLY</b>		<small>U.S. Department of Commerce Patent and Trademark Office</small>
<p>To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.</p>				
<p>1. Name of conveying party(ies):</p> <p>Matthew Fenton Davis John M. Yamartino</p> <p>DATE ASSIGNMENT SIGNED 9-26-03 9-25-03</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger  <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name  <input type="checkbox"/> Other</p> <p>Execution Date: <u>SEE ABOVE</u></p>		<p>2. Name and address of receiving party(ies):</p> <p>Name: <u>Applied Materials, Inc.</u></p> <p>Internal Address:</p> <p>Street Address: <u>3050 Bowers Avenue</u></p> <p><u>P.O. Box 450A</u></p> <p>City: <u>Santa Clara</u> State: <u>CA</u> Zip: <u>95054</u></p> <p>Additional name(s) &amp; address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		
<p>4. Application number(s) or registration number(s):</p> <p>If this document is being filed together with a new application, the execution date of the application is: <u>SEPT 29, 2003</u> (Date of Filing)</p> <p>A. Patent Application No.(s)</p> <p>B. Patent No.(s)</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>				
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: <u>Patent Counsel</u></p> <p>Internal Address: <u>APPLIED MATERIALS, INC.</u></p> <p>Street Address: <u>P.O. Box 450A</u></p> <p>City: <u>Santa Clara</u> State: <u>CA</u> Zip: <u>95052</u></p>		<p>6. Total number of applications and patents involved: <u>1</u></p> <p>7. Total fee (37 C.F.R. 3.41) <u>\$ 40.00</u></p> <p><input type="checkbox"/> Enclosed</p> <p><input checked="" type="checkbox"/> Authorized to be charged to deposit account</p> <p><u>50-1074</u></p> <p>8. Deposit account number:</p> <p><u>50-1074</u></p>		
DO NOT USE THIS SPACE				
<p>9. Statement and signature.</p> <p>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</p> <p><u>ROBERT W. MULCAHY</u></p> <p>Name of Person Signing</p> <p>Registration No. 25,436</p> <p><i>Robert W. Mulcahy</i></p> <p>Signature</p> <p>Date <u>SEPT. 29, 2003</u></p> <p>Total number of pages including cover sheet, attachments and document: <u>3</u></p>				

Mail documents to be recorded with required cover sheet information to:  
 Commissioner of Patents & Trademarks, Box Assignments  
 Washington, D.C. 20231